

Naval War College  
Newport, RI.

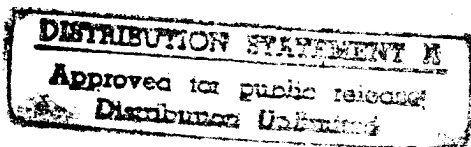
**OPERATIONAL ART IN THE 1973 ARAB-ISRAELI WAR  
(AN EGYPTIAN PERSPECTIVE)**

by

Gregory H. Cooper  
CDR USN

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.



Signature G. H. Cooper

May 19, 1997

19970814 149

DTIC QUALITY INSPECTED 1

## REPORT DOCUMENTATION PAGE

1. Report Security Classification: UNCLASSIFIED			
2. Security Classification Authority:			
3. Declassification/Downgrading Schedule:			
4. Distribution/Availability of Report: DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.			
5. Name of Performing Organization: JOINT MILITARY OPERATIONS DEPARTMENT			
6. Office Symbol: C		7. Address: NAVAL WAR COLLEGE 686 CUSHING ROAD NEWPORT, RI 02841-1207	
8. Title (Include Security Classification): OPERATIONAL ART IN THE 1973 ARAB-ISRAELI <sup>WAR</sup> <del>CONFLICT</del> (AN EGYPTIAN PERSPECTIVE) (U)			
9. Personal Authors: CDR GREGORY H. COOPER, USN			
10. Type of Report: FINAL		11. Date of Report: 19 MAY 97	
12. Page Count: 16			
13. Supplementary Notation: A paper submitted to the Faculty of the NWC in partial satisfaction of the requirements of the JMO Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy.			
14. Ten key words that relate to your paper: 1973 Arab-Israeli War Yom Kippur War Ramadan War			
15. Abstract:  The performance of Egyptian forces before and during the 1973 Arab-Israeli War reveals skillful employment of Operational Art by their military leaders.			
	Unclassified  X	Same As Rpt	DTIC Users
17. Abstract Security Classification: UNCLASSIFIED			
18. Name of Responsible Individual: CHAIRMAN, JOINT MILITARY OPERATIONS DEPARTMENT			
19. Telephone: 841-6461		20. Office Symbol: C	

## OPERATIONAL ART IN THE 1973 ARAB-ISRAELI WAR (AN EGYPTIAN PERSPECTIVE)

*"War is nothing but the continuation of  
policy with other means,"  
Carl Von Clausewitz*

*"He who will not risk, cannot win."  
John Paul Jones*

### **Setting the stage**

The Middle East was at a crossroads in the fall of 1973. The Arab world was united in its desire to destroy the state of Israel. However, in a succession of four wars dating from the founding of the Jewish state in 1948, the Arabs had only managed a string of embarrassing military defeats.<sup>1</sup> Israel was content to sit behind its defenses and negotiate from a position of strength while continuing to hold captured territory and maintaining a tenuous truce with its Arab neighbors.

To the surprise of the entire world, that situation changed at 1355(L) on 6 October 1973 when Egyptian and Syrian forces launched simultaneous attacks that came close to the complete defeat of Israel. Along the Suez Canal "four thousand Egyptian guns opened up on the Israeli defenders in the first minute. Twenty minutes later, one thousand assault rafts began transporting the first waves of five infantry divisions--80,000 men--across the roiled waters of the canal. In another ten minutes the first Egyptian flag was flying from the Bar-Lev Line. It took just one hour for the first of the supposedly impregnable Bar-Lev fortresses to fall. Others followed like dominoes."<sup>2</sup>

---

<sup>1</sup> Avraham (Bren) Adan, On the Banks of the Suez (Presidio, Presidio Press 1980), x.

<sup>2</sup> Donald Neff, Warriors Against Israel (Brattleboro, Amana Books 1988), 7.

As the war progressed, the world was treated to scenes of numerous Israeli POWs being marched off into captivity and triumphant Arabs on top of former Israeli strongholds. After a most tenuous beginning, during which Israel actually feared for its continued survival, it launched a spirited series of counter-attacks and was able to turn the tide in its favor. Largely regaining much of its lost territory, Israel pressed forward to gain general overall operational and tactical advantage wherever possible. Both superpowers (the United States and the Soviet Union) became intimately involved in first resupplying their respective client states during the conflict and eventually brokered a cease-fire some eighteen days after commencement of hostilities.

These hostilities, known to the Israelis as the Yom Kippur War and to the Arabs as the Ramadan War, had a profound effect on the future of the Middle East. This paper will focus on how Egypt was able to plan, coordinate and carry out an attack that so surprised and overwhelmed the Israelis that it remains today a stunning example of skilled *operational art*. The boldness and innovation of Egyptian military leaders, coupled with their adherence to the tenets of “*Op Art*”, enabled them to claim, what in their eyes, was the first Arab victory against Israel. In doing so, the Egyptian military leaders successfully carried out the strategic tasking they had received from their political leaders.

The circumstances leading up to war make the Arabs' successes all the more impressive. The Egyptian nation was under a number of internal stresses in 1972. President Anwar Sadat was still in the process of proving that he could fill the shoes of Gamal Abdul Nasser (who had died in 1970). Sadat “was not considered to be a strong

politician, and was viewed as only an interim leader of Egypt.”<sup>3</sup>

The continued closure of the Suez Canal and its effect on national honor and the economy were not insignificant. The country's admittedly poor showing in the 1967 Arab-Israeli War had embarrassed the nation. “For Sadat, the status quo of ‘no war--no peace’ was intolerable. Facing a crumbling economy, deprived of Suez Canal revenues, and still shouldering the humiliation of 1967, Sadat had to do something.”<sup>4</sup> Also clouding the situation was disagreement with the Soviet Union on a host of issues and President Sadat's personal dissatisfaction that led to his July 1972 edict for all Soviet advisors to depart the country. Since many viewed the Egyptians as being unable, alone, to properly maintain and operate their largely Soviet-supplied military equipment, Arab military capabilities were not highly regarded.

### **Rebuilding the military**

The ease over the years, with which the Israelis had defeated the Arab nations, culminating in their striking success in 1967, had created an atmosphere of Arab defeatism and self doubt. Correcting this was one of the first chores the Egyptian military leaders addressed. Just as the leaders of America's military would launch a spirited internal revitalization following the painful lessons of Viet Nam, so too did the Egyptians after the 1967 war. “The Egyptian armed forces proceeded to reconstruct their military organization from the base up, both materially and *morally* (italics added). Simultaneously they conducted a rigorous program of training and serious planning for a

---

<sup>3</sup> Alvin Washington, “A Clausewitzian Victory . . . The 1973 Ramadan War” Research Paper, U. S. Army Command and General Staff College, Ft Leavenworth, KS: 1988, 13.

<sup>4</sup> David Buckwalter, “The 1973 Arab-Israeli Conflict” Research Paper, U. S. Naval War College, Newport, RI --, 1.

future battle..."<sup>5</sup> Although morale and fighting spirit are abstract elements and difficult to measure, it was obvious that improvement in these areas was the foundation for future success against Israel. They reinforced in their troops the belief that their cause was not only just but holy. Playing the religion card, although not original, carried tremendous weight in the Muslim world.

Since the end of the 1967 "Six Day War," Egypt had been involved in a careful and systematic plan to rebuild their armed forces and again challenge the Israelis militarily. "During this period Egypt directed all efforts toward massive reconstruction of her military forces. Several major decisions were made to improve Egyptian military performance. First of a disciplinarian, Mohammed Fauzi, was appointed Minister of War in hopes of bringing about better coordination and cooperation between the Air Force and Army. Major logistical improvements were made in storage and supply facilities in order to increase force sustainment capabilities. The decision was made to draft greater numbers of university graduates into military service in an effort to increase the quality of its officers corps."<sup>6</sup>

The time between the Six Day War and Ramadan War was divided by the Egyptians into four main phases:

Defiance	June 1967 – August 1968
Active Defense	September 1968 – February 1969
War of Attrition	March 1969 – August 1970

---

<sup>5</sup> Hassan al-Badri, The Ramadan war, 1973 (Dunn Loring: T. N. Dupuy 1978), 10.

<sup>6</sup> Washington, 7.

Between the termination of hostilities in 1967 and their 1973 resumption, initial efforts were concentrated on reconstruction and reconstitution. Successful defensive efforts against Israeli probes followed by offensive actions of their own allowed the Egyptians to foster self-confidence and overcome the “ten foot tall” image that the Israelis had carefully cultivated. Subsequent intense exchanges of artillery fire punctuated the latter phases listed above. In all the numerous land, sea and air engagements of these phases both sides suffered losses but in each the Egyptians often “gave as good as they got” and in, some instances, bloodied the Israelis. From late 1970 until the beginning of the Ramadan War, both sides settled into a period of constant confrontation from across armed lines at a level just below actual conflict.

Concurrent with the Egyptian revitalization in morale and fighting spirit was a tremendous materiel and equipment build up. The Soviets provided their client state with an impressive arsenal. The arms included a superb array of surface-to-air missiles (SAMs) that were more mobile and lethal than any previously seen and a host of deadly anti-tank weapons. The Egyptian air defense “was the densest in the world. It had been steadily reinforced,..., and it bristled with sophisticated weapons,..., Equally important was a thick forest of antiaircraft guns provided by Moscow.”<sup>8</sup> The Egyptians recognized that this improved weaponry could change the nature of combat in their favor if employed properly. Their subsequent operational plans ensured this would happen.

---

<sup>7</sup> al-Badri, 10.

<sup>8</sup> Adan, 117.

## **Decision to Attack**

“The decision to use military power was made in November 1972 when Egypt’s political and military commands reached total agreement that Egypt could never escape from the stagnated state of no war, no peace without recourse to armed force. It was considered a last resort to persuade Israel of the futility of continuing aggression, occupying Arab territories by force, and ignoring the rights of the Palestinians.”<sup>9</sup> The Egyptians were frustrated that while they had, in their minds, gone to great lengths to reach a just solution for the Middle East crisis<sup>10</sup>, the Israelis remained intransigent. The Arabs perceived Israel as content to retain the lands it had won in 1967. They felt the Israelis would react to any military actions on the order of the “no war, no peace” scale at their leisure with military and political actions that favored the Jewish state. The strategic goals of “changing the balance of political and military power in the Middle East and of paving the way for the subsequent use of the remaining aspects of the Arab’s available power (the oil weapon)”<sup>11</sup> were subsequently agreed upon and established.

This strategic guidance was carefully translated into operational planning. This was done by Major General Bahey el Din Mohamed Nofal, who had been established the head of a federal operational department as part of a Federal Arab Military Command composed of Egypt, Syria and Libya. The Egyptian staff, under his direction,

---

<sup>9</sup> al-Badri, 15.

<sup>10</sup> Ibid, 5.

<sup>11</sup> Ibid, 16.



skillfully crafted operational instructions that cleanly translated strategy into operational directives. "The military objective was the defeat of the Israeli armed forces deployed in the Sinai and the Syrian plateau and the seizure of strategic land areas...."<sup>12</sup>

### **Success in Operational Art Achieved**

Egypt's shocking success in the initial phases of the Ramadan War came about due to their focus on the task at hand and their detailed planning. The Egyptians determined what their operational goals were and carefully prepared the means to achieve them. As they made ready for war, they were careful to take into account the importance of the following concepts considered linchpins of *operational art*:

**-Mass:** Conventional wisdom calls for an attacker to build a 3 to 1 advantage in forces over the defenders prior to conducting an assault. The Egyptians understood the inherent value in possessing superior numbers at the point of attack and applied a number of methods during their planning to assure it. Taking advantage of the obvious benefits of knowing when and where the attack would take place, the Arabs played a proverbial chess game with numerous troop movements being conducted. Starting well before the war and leading up until its beginning, the Egyptian forces were placed in positions of readiness that enabled them to achieve the necessary *Mass* to overwhelm the Israeli defending force. "The assembling of troops for the offensive was done over a period of up to four months, by moving units in small elements and gradually accumulating strength near the front. The major elements were shifted from the interior

---

<sup>12</sup> Ibid, 15.

of Egypt to the front three weeks before the beginning of the attack, under pretense of undertaking engineering preparations as a prelude to a joint massive maneuver. As a matter of fact, the real attack was launched during this maneuver.”<sup>13</sup>

The following table attests to the Egyptians success in achieving the prerequisite Mass for success in their attack.

Actual Balance of Forces on 6 October 1973		
Suez Canal Front		
<u>Egypt</u>		<u>Israel</u>
5 infantry divisions (each including 1 tank brigade of 120 tanks)		2 infantry regiments manning Bar-Lev Line: total of 436 men
2 Independent armoured divisions (2 tank brigades and 1 mechanized division of 250 tanks)		
3 mechanized divisions (each including 2 mechanized divisions and 1 tank division of 160 tanks): total of 1550 tanks		3 tanks on Bar-Lev Line, 377 tanks in rear
5 helicopter-borne commando regiments		
1850 artillery pieces		70 artillery pieces
62 ground-to-air missile batteries		
550 aircraft		approx. 400 aircraft for both fronts (Suez and Golan Hts.) <sup>14</sup>

“Although former (Israeli) Chief of Staff Bar-Lev,..., assumed that some 300 of

<sup>13</sup> Ibid, 46.

<sup>14</sup> Michael I. Handel, Perception, Deception and Surprise: The Case of the Yom Kippur War (Jerusalem: Jerusalem Post Press 1976), 64.

Israel's tanks could successfully fight 1500 (*italics added*) Egyptian tanks, a five-to-one ratio... "15 and the Israeli defense plans called for quick call up and reinforcement by their reserves, still, the Egyptians were able to successfully muster the *Mass* called for by the tenets of *Operational Art*.

**-Objective:** This concept must be viewed through the prism of the Arab world in order to make sense of it. "Many non-Western cultures have departed from Western logic. They agree with Clausewitz on the primacy of politics and the subordinate role of military action to politics. But war is considered a worthwhile undertaking even if military success is not guaranteed, so long as political goals can be attained, including, often, the preservation of one's honour and pride. Paradoxically, in terms of Western experience - political aims are frequently obtained even through defeat."16 Although the 1973 Arab-Israeli War is generally regarded as an Israeli victory after surprising early Arab success, the Arabs disagree and regard the war as having met its strategic and operational goals. As stated by a high ranking Egyptian army officer: "The Arab offensive of October 1973 achieved every one of its political and military objectives. Politically, President Sadat's 'spark' did succeed in setting in motion the chain reaction wanted in the Middle East . From diversity and disunity of the Arabs, unity and effective leadership emerged, and from their success the Arabs reclaimed their pride and honor."17 As Yitzhak Rabin stated: "The Yom Kippur War was not fought by Egypt and Syria to threaten the existence Of Israel. It was an all-out use of their military force to achieve a limited political goal. What Sadat wanted by crossing the canal was to change the political reality and, thereby, to start a political process from a point more

---

<sup>15</sup> Ibid, 45.

<sup>16</sup> Ibid, 24.

<sup>17</sup> al-Badri, 221.

favorable to him than was the one that existed. In this respect, he succeeded.”<sup>18</sup>

**-Offense:** The Arab attack was inherently offensive in nature. The Israeli forces were established along the Bar-Lev Line. The Egyptians’ plans called for a rapid crossing of a formidable water barrier (the Suez Canal) and then an audacious assault against carefully emplaced defenses. Achieving these goals could only be accomplished by a plan that emphasized offensive action in all respects. The sense of dramatic offensive action required for success was translated into innovation in the way the Egyptians solved the problems they faced.

**-Surprise:** That this element should be included in any attack is obvious, the difficult part is achieving it. The methods that the Arabs employed to deceive and confuse the Israelis to achieve *Surprise* worked beyond expectation. The Egyptians so skillfully deployed their troops that, in some cases, the Israelis did not realize their presence. In others, their deployment had been under the ruse of routine training and therefore could be easily dismissed by Israeli Intelligence. “The Egyptians arrayed their troops under the guise of manoeuvres. Troops were brought to the front, withdrawn from the front during daylight, and sent to the front again at night. The use of live ammunition, further troop concentrations and other irregular activities were seen as precautionary moves against possible attack by Israel during these exercises. Other means of deception included Egyptian and Syrian complaints against the unsatisfactory quality of Russian military equipment, thus suggesting they were not sufficiently armed and equipped to initiate war.”<sup>19</sup>

---

<sup>18</sup> Neff, 306.

<sup>19</sup> Handel, 58.

There are numerous examples of just how successful the Arabs were in 1973. One Israeli armored division commander was quick to admit that "In October 73, Israel was taken by surprise. The charging Egyptian and Syrian armies were met by the Israeli regular army alone, while Israel's main force, the Reserve army, was just beginning to mobilize and move to the front. Israel paid dearly for this surprise, which affected the conduct of the entire war and its consequences."<sup>20</sup> During the "early hours Israel's forces on both fronts were still reeling under the shock of surprise. The Egyptian command heard Israeli tank commanders complaining in a state of total bewilderment of fire which seemed to be coming at them from nowhere in the desert,..."<sup>21</sup>

The Egyptians' ability to achieve *Surprise* was a key to their success against Israel. One point that needs to be mentioned is that the Israelis themselves bear a great deal of the blame for being surprised. Not a small amount of blame is due to their supreme overconfidence. They had been so successful against the Arabs that they had begun to believe their propaganda of the Arab military incompetence. That such large scale operations were taking place on their borders should have galvanized into action a nation that depended on early mobilization of its reserves for its defense.

"Possibly the most serious error in evaluation on the part of Israel intelligence was that all the changes and preparations taking place simultaneously along *both* the Syrian and Egyptian front lines were apparently not viewed in concert, but rather separately analyzed."<sup>22</sup>

---

<sup>20</sup> Adan, xii.

<sup>21</sup> Mohamed Heikal, The Road to Ramadan (New York: New York Book Co. 1975), 210.

<sup>22</sup> Handel, 58.

**-Economy of Force:** The Arabs displayed one particular example of this concept during the Ramadan War. It dealt with the means by which they attained conservation of their combat aircraft. The Arabs knew that their air assets were no match for the Israeli Air Force in a head-to-head confrontation. Prior experience with the Israelis had led to unacceptable losses.

The Arabs chose a non-symmetrical response to this threat and established an unprecedented surface-to-air missile/anti-aircraft gun umbrella around their ground forces. The Arabs correctly surmised that while the Israelis required air superiority for success on the battlefield, they merely required the negation of Israeli dominance. The Israelis were unpleasantly "surprised to discover that the Arabs were content to merely negate Israel's control of the skies rather than dominate the skies themselves."<sup>23</sup> By doing so, the Arabs conserved valuable assets that were then available for other, more critical missions than unnecessarily attempting to wrestle control of the sky from the Israelis. This way the Egyptians husbanded their forces and conserved their assets.

**-Unity of Command:** The Egyptians' demonstration of this tenet is less well-known and less obvious than others. President Sadat himself ensured that the chain-of-command for the Ramadan War operations was as clear and concise as possible. In the fall of 1972, after uncovering what he perceived as unsatisfactory performance by his military advisors, he relieved several of his top officers. He then assigned Achmed Ismail as minister of war who was able to draw on the skill of two experienced generals: Saad Shazly (Chief of Staff) and Abdul Ghani Gamasy (General Shazly's Director of

---

<sup>23</sup> Handel, 23.

Operations) These men, despite some personal disagreements, operated a streamlined command structure that minimized bureaucratic friction. They formed a team that was responsible for the overall planning and execution of the Egyptian attack.<sup>24</sup>

**-Simplicity:** Despite the complexity and enormity of the task facing the Egyptians, their battle plans retained the value of *Simplicity*. Their goal to breach the Israel's Suez Canal/Bar Lev defensive line on a wide front and to establish a secure foothold was easily stated and understood. The Egyptians realized that they had to make the Israelis fight their kind of war; one that favored the Arabs' methods and operational procedures. To do this, the Arabs needed to quickly obtain their foothold on the eastern side of the Suez and establish a viable threat to the Israelis. This included extending their formidable SAM/AAA protection to cover their forces deployed across the Suez from Israeli aerial counter-attack.

From this position of strength the Egyptians foresaw themselves as being able to force the Israelis to engage on terms only favorable to the Arabs. The Israeli strengths of skill in the use of maneuver and massed armor would be largely negated. The Egyptians hoped to be able to engage their enemies in a battle of attrition. If successful, the Arabs assumed the Jewish state would be most reluctant to accept any large number of casualties and would be forced to terminate their counter-offensive actions. The Egyptians correctly identified the Israelis' great reluctance to suffer casualties as a critical weakness. "Their subsequent counter-offensive would present the Egyptians with the opportunity to chop them up in what General Shazli (Egyptian Chief of Staff)

---

<sup>24</sup> Adan, 101.

described as a 'meat-grinder' war."<sup>25</sup> If Syrian pressure to mount further offensive actions following the success of their initial assaults had not forced them into initially unplanned operations, this course of action would very likely have been effective.

## **Conclusion**

As the 1973 Arab-Israeli War ended, everyone in the region realized that the political-military environment in the Middle East had undergone a profound change. The Israelis, despite a frenetic "fourth quarter comeback" could never again be as assured in their military preeminence. The Arab nations had gained a measure of respect by the world they felt was long overdue. More importantly, they effectively forced the state of Israel to look for other options in securing its existence than merely burrowing down behind its concept of secure borders.

Although precise estimates are suspect, it appears that the Arabs suffered the greater number of casualties and material losses in the war. Taking into account Israel's smaller population base, this standard measure of victory loses some of its merit. As Egypt's professed goal was to force Israel to acceptance of renewed dialogue, the Egyptian military was successful in employing *Operational Art*. They translated their strategic guidance into operational tasking that achieved the desired end state. Success was due to a combination of thorough understanding of their tasking, superb planning and dramatic execution. Any military operations undertaken in the future will need at least such effort and skill to succeed.

---

<sup>25</sup> D. K. Palit, Return to the Sinai (Faridabad: Thomson Press 1974), 32.



## WORKING BIBLIOGRAPHY

Adan, Avraham, *On the Banks of the Suez*, Presidio, CA, Presidio Press, 1980.

al-Badri, Hasan, *The Ramadan War*, Dunn Loring, VA, T. N. Dupuy Associates, Inc., 1978.

Buckwalter, David T., *The 1973 Arab-Israeli Conflict*, Naval War College, Newport, RI, --.

Handel, Michael I., *Perception, Deception and Surprise: The Case of the Yom Kippur War*, Israel, Jerusalem Post Press, 1976.

Heikel, Mohamed, *The Road to Ramadan*, 1975, New York, The New York Times Book Company.

Neff, Donald, *Warriors Against Israel*, Brattleboro, Amana Books, 1988.

Palit, D. K., *Return to Sinai*, Faridabad, Thomson Press, 1974.

Washington, Alvin, *A Clausewitzian Victory . . . The 1973 Ramadan War*, U. S. Army Command and General Staff College, Ft Leavenworth, KS.